

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1	("6608026").PN	US-PGPUB; USPAT	OR	OFF	2004/11/09 13:59
S2	28	avpi	US-PGPUB; USPAT	OR	ON	2004/11/09 13:51
S3	314	iap same apoptosis	US-PGPUB; USPAT	OR	ON	2004/11/09 13:51
S4	9	S2 and S3	US-PGPUB; USPAT	OR	ON	2004/11/09 13:53
S5	3	S4 and (@pd<="20000929" or @rlad<="20000929")	US-PGPUB; USPAT	OR	ON	2004/11/09 13:54

## Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1653SXS

PASSWORD :

TERMINAL (ENTER 1, 2, 3, OR ?):2

NEWS	1	Web Page URLs for STN Seminar Schedule - N. America
NEWS	2	"Ask CAS" for self-help around the clock
NEWS	3 JUL 12	BEILSTEIN enhanced with new display and select options, resulting in a closer connection to BABS
NEWS	4 AUG 02	IFIPAT/IFIUDB/IFICDB reloaded with new search and display fields
NEWS	5 AUG 02	CAplus and CA patent records enhanced with European and Japan Patent Office Classifications
NEWS	6 AUG 02	The Analysis Edition of STN Express with Discover! (Version 7.01 for Windows) now available
NEWS	7 AUG 27	BIOCOMMERCE: Changes and enhancements to content coverage
NEWS	8 AUG 27	BIOTECHABS/BIOTECHDS: Two new display fields added for legal status data from INPADOC
NEWS	9 SEP 01	INPADOC: New family current-awareness alert (SDI) available
NEWS	10 SEP 01	New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!
NEWS	11 SEP 01	New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
NEWS	12 SEP 27	STANDARDS will no longer be available on STN
NEWS	13 SEP 27	SWETSCAN will no longer be available on STN
NEWS	14 OCT 28	KOREAPAT now available on STN
NEWS EXPRESS		OCTOBER 29 CURRENT WINDOWS VERSION IS V7.01A, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
NEWS HOURS		STN Operating Hours Plus Help Desk Availability
NEWS INTER		General Internet Information
NEWS LOGIN		Welcome Banner and News Items
NEWS PHONE		Direct Dial and Telecommunication Network Access to STN
NEWS WWW		CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 13:41:08 ON 09 NOV 2004

=> FIL REGISTRY  
COST IN U.S. DOLLARS  
  
FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 13:41:26 ON 09 NOV 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 8 NOV 2004 HIGHEST RN 777024-10-9  
DICTIONARY FILE UPDATES: 8 NOV 2004 HIGHEST RN 777024-10-9

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more  
information enter HELP PROP at an arrow prompt in the file or refer  
to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

```
=> s avpi/sqep
      6 AVPI/SQEP
      63671 SQL=4
L1          6 AVPI/SQEP
            (AVPI/SQEP AND SQL=4)
```

	SINCE FILE ENTRY	TOTAL SESSION
COST IN U.S. DOLLARS		
FULL ESTIMATED COST	7.02	7.23

FILE 'CAPLUS' ENTERED AT 13:41:52 ON 09 NOV 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 13:41:52 ON 09 NOV 2004

FILE 'EMBASE' ENTERED AT 13:41:52 ON 09 NOV 2004  
COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

FILE 'SCISEARCH' ENTERED AT 13:41:52 ON 09 NOV 2004  
Copyright (c) 2004 The Thomson Corporation.

FILE 'BIOSIS' ENTERED AT 13:41:52 ON 09 NOV 2004  
Copyright (c) 2004 The Thomson Corporation.

```
=> s l1
'SQEP' IS NOT A VALID FIELD CODE
L2          21 L1
```

```
=> dup rem 12
PROCESSING COMPLETED FOR L2
L3          19 DUP REM L2 (2 DUPLICATES REMOVED)
```

```
=> d 13 bib ab
```

L3 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:702118 CAPLUS
DN 141:218943
TI Compositions and methods for enhancing apoptosis using BIR domain-binding

oligopeptides to release melanoma inhibitor of apoptosis protein from caspase

IN Fairbrother, Wayne J.; Deshayes, Kurt; Fischer, Saloumeh; Flygare, John A.; Franklin, Matthew C.; Vucic, Domagoj

PA Genentech, Inc., USA

SO PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004072641	A1	20040826	WO 2003-US3799	20030207
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI WO 2003-US3799 20030207

OS MARPAT 141:218943

AB The present invention is directed to compns. of matter useful for the enhancement of apoptosis in mammals and to methods of using those compns. of matter for the same. BDB (BIR domain-binding) oligopeptides that specifically bind to ML-IAP (melanoma inhibitor of apoptosis) and release the inhibitory effect ML-IAP has on caspase activity are claimed. Apoptosis in cancer cells is increased by administering the oligopeptide.

=> d 13 bib ab 2-19

L3 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2004:722899 CAPLUS  
DN 141:248727  
TI Peptide compositions and methods for enhancing apoptosis  
IN Deshayes, Kurt; Fairbrother, Wayne; Flygare, John; Franklin, Matthew C.; Fischer, Saloumeh; Vucic, Domagoj  
PA Genentech, Inc., USA  
SO U.S. Pat. Appl. Publ., 50 pp.  
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004171554	A1	20040902	US 2003-364645	20030207

PRAI US 2003-364645 20030207

OS MARPAT 141:248727

AB The present invention is directed to compns. of peptides useful for the enhancement of apoptosis in mammals and to methods of using those compns. of matter for the same.

L3 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2004:498222 CAPLUS

DN 141:169708

TI Structural Mining: Self-Consistent Design on Flexible Protein-Peptide Docking and Transferable Binding Affinity Potential

AU Liu, Zhijie; Dominy, Brian N.; Shakhnovich, Eugene I.

CS Department of Chemistry and Chemical Biology, Harvard University,

SO Cambridge, MA, 02138, USA  
Journal of the American Chemical Society (2004), 126(27), 8515-8528  
CODEN: JACSAT; ISSN: 0002-7863  
PB American Chemical Society  
DT Journal  
LA English  
AB A flexible protein-peptide docking method has been designed to consider not only ligand flexibility but also the flexibility of the protein. The method is based on a Monte Carlo annealing process. Simulations with a distance root-mean-square (dRMS) virtual energy function revealed that the flexibility of protein side chains was as important as ligand flexibility for successful protein-peptide docking. On the basis of mean field theory, a transferable potential was designed to evaluate distance-dependent protein-ligand interactions and atomic solvation energies. The potential parameters were developed using a self-consistent process based on only 10 known complex structures. The effectiveness of each intermediate potential was judged on the basis of a Z score, approximating the gap between the energy of the native complex and the average energy of a decoy set. The Z score was determined using exptl. determined native structures and

decoys generated by docking with the intermediate potentials. Using 6600 generated decoys and the Z score optimization criterion proposed the developed potential yielded an acceptable correlation of  $R^2 = 0.77$ , with binding free energies determined for known MHC I complexes (Class I Major Histocompatibility protein HLA-A\*0201) which were not present in the training set. Test docking on 25 complexes further revealed a significant correlation between energy and dRMS, important for identifying native-like conformations. The near-native structures always belonged to one of the conformational classes with lower predicted binding energy. The lowest energy docked conformations are generally associated with near-native conformations, less than 3.0 Å dRMS (and in many cases less than 1.0 Å) from the exptl. determined structures.

RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2004:566939 CAPLUS  
DN 141:253639  
TI Structure-Based Design, Synthesis, and Evaluation of Conformationally Constrained Mimetics of the Second Mitochondria-Derived Activator of Caspase That Target the X-Linked Inhibitor of Apoptosis Protein/Caspase-9 Interaction Site  
AU Sun, Haiying; Nikolovska-Coleska, Zaneta; Yang, Chao-Yie; Xu, Liang; Tomita, York; Krajewski, Krzysztof; Roller, Peter P.; Wang, Shaomeng  
CS Departments of Internal Medicine and Medicinal Chemistry and Comprehensive Cancer Center, University of Michigan, Ann Arbor, MI, 48109-0934, USA  
SO Journal of Medicinal Chemistry (2004), 47(17), 4147-4150  
CODEN: JMCMAR; ISSN: 0022-2623  
PB American Chemical Society  
DT Journal  
LA English  
AB A successful structure-based design of conformationally constrained second mitochondria-derived activator of caspase (Smac) mimetics that target the XIAP/caspase-9 interaction site is described. The most potent Smac mimetic (12d) has a Ki of 350 nM for binding to the XIAP BIR3 domain protein. The compound 12d is found to be effective in enhancing apoptosis induced by cisplatin in PC-3 human prostate cancer cells.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2003:434582 CAPLUS  
DN 139:30774  
TI Methods and compositions using peptidyl and nonpeptidyl compounds for

derepression of IAP-inhibited caspase, therapeutic use, and methods for identification of agents  
 IN Reed, John C.; Houghten, Richard A.; Nefzi, Adel; Ostresh, John M.;  
 Pinilla, Clemencia; Welsh, Kate  
 PA The Burnham Institute, USA; Torrey Pines Institute for Molecular Studies  
 SO PCT Int. Appl., 182 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003045974	A2	20030605	WO 2002-US37577	20021121
	WO 2003045974	A3	20040219		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2003180805	A1	20030925	US 2002-302811	20021121
	EP 1465649	A2	20041013	EP 2002-793997	20021121
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
PRAI	US 2001-331957P	P	20011121		
	WO 2002-US37577	W	20021121		

AB The invention provides isolated agents having a core peptidyl or nonpeptidyl (e.g. urea derivative, diketopiperazine derivative) structure, wherein

the agent derepresses an IAP-inhibited caspase. The invention also provides a method of derepressing an IAP-inhibited caspase. The method consists of contacting an IAP-inhibited caspase with an effective amount of an agent to derepress an IAP-inhibited caspase. The methods of the invention can be used for promoting apoptosis in a cell and for reducing the severity of a pathol. (e.g. cancer) characterized by reduced levels of apoptosis. Methods for identifying agents that derepress an IAP-inhibited caspase are also provided.

L3 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2003:376888 CAPLUS  
 DN 138:379183  
 TI Methods and reagents for peptide-BIR interaction screens  
 IN Boudreault, Alain; Korneluk, Robert G.; La Casse, Eric; Liston, Peter  
 PA Aegea Therapeutics, Inc., Can.  
 SO PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003040172	A2	20030515	WO 2002-CA1738	20021112
	WO 2003040172	A3	20040311		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,  
 CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
 PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
 NE, SN, TD, TG  
 US 2003157522 A1 20030821 US 2002-293371 20021112  
 PRAI US 2001-332300P P 20011109  
 US 2002-370934P P 20020408  
 AB The invention features a substantially pure polypeptide having a length of less than 100 amino acids and capable of forming a complex with a polypeptide that includes a BIR domain. The invention also features displacement assays in which the ability of a candidate compound to disrupt the interaction between a BIR domain-containing polypeptide and a polypeptide of the invention is indicative of the ability of the candidate compound to modulate IAP biol. activity.  
 L3 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2003:833884 CAPLUS  
 DN 139:317425  
 TI Smac-peptides as therapeutics against cancer and autoimmune diseases by sensitizing for TRAIL- or anticancer drug-induced apoptosis  
 IN Debatin, Klaus Michael; Fulda, Simone  
 PA Deutsches Krebsforschungszentrum Stiftung des Oeffentlichen Rechts, Germany  
 SO Eur. Pat. Appl., 19 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1354952	A1	20031022	EP 2002-8199	20020417
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	EP 1354953	A1	20031022	EP 2002-15499	20020712
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	WO 2003086470	A2	20031023	WO 2003-EP4039	20030417
	WO 2003086470	A3	20040506		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	EP 2002-8199	A	20020417		
	EP 2002-15499	A	20020712		
AB	The invention is directed to the use of Smac to sensitize different tumors and self-reactive immune cells to various pro-apoptotic stimuli, in that the cells subsequently undergo apoptosis. Therefore, Smac can be used as a compound for the manufacture of a medicament for the treatment of cancer and autoimmune diseases. Sensitization of the cells is achieved either by applying a cell-permeable form of Smac combined with known anticancer agents or by overexpression of the protein. It is an object of the invention to provide a new method in cancer and autoimmune disease therapy by using Smac agonists for apoptosis regulation. Thus, Smac agonists represent novel promising cancer and autoimmune disease therapeutics to potentiate the efficacy of cytotoxic therapies even in resistant tumors and immune cells. In particular, overexpression of full-length Smac protein potentiated TRAIL-induced apoptosis and also markedly increased apoptosis induced by anti-CD95 antibody or cytotoxic drugs in transfected				

SHEP neuroblastoma cells. The overexpression of Smac is shown to promote apoptosis through antagonizing the inhibition of XIAP of both distal and proximal events in the caspase cascade. The cytosolic Smac, with the deletion of transit peptide for mitochondria (N-terminal 55 AA), bypasses Bcl-2 inhibition in several cell types in response to different pro-apoptotic stimuli. The cell permeable Smac peptide (4 N-terminal IAP-interacting plus 3 addition following residues linked to TAT transduction domain) can facilitate intracellular delivery of Smac peptide and sensitize several resistant cell lines with defects in apoptosis signaling for treatment with TRAIL or doxorubicin. Expression of a cytosolic active form of Smac or cell-permeable Smac peptides bypassed the Bcl-2 block, which prevented the release of Smac from mitochondria, and also sensitized resistant neuroblastoma or melanoma cells and patient-derived primary neuroblastoma cells ex vivo. Thus, Smac agonists represent novel promising cancer therapeutics to potentiate the efficacy of cytotoxic therapies. Smac peptides is shown to enhance the antitumor effect of TRAIL in glioblastoma in mouse glioblastoma model and induce eradication of tumors.

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2003:146167 CAPLUS  
DN 139:131557  
TI A Novel Ubiquitin Fusion System Bypasses the Mitochondria and Generates Biologically Active Smac/DIABLO  
AU Hunter, Allison M.; Kottachchi, Dan; Lewis, Jennifer; Duckett, Colin S.; Korneluk, Robert G.; Liston, Peter  
CS Children's Hospital of Eastern Ontario, Solange Gauthier Karsh Molecular Genetics Laboratory, Research Institute, Ottawa, ON, K1H 8L1, Can.  
SO Journal of Biological Chemistry (2003), 278(9), 7494-7499  
CODEN: JBCHA3; ISSN: 0021-9258  
PB American Society for Biochemistry and Molecular Biology  
DT Journal  
LA English  
AB Smac/DIABLO is a mitochondrial protein that is proteolytically processed and released during apoptosis along with cytochrome c and other proapoptotic factors. Once in the cytosol, Smac protein binds to inhibitors of apoptosis (IAP) proteins and disrupts the ability of the IAPs to inhibit caspases 3, 7, and 9. The requirement for mitochondrial processing and release has complicated efforts to delineate the effect of Smac overexpression and IAP inhibition on cell death processes. In this report, we document a novel expression system using ubiquitin fusions to express mature, biol. active Smac in the cytosol of transfected cells. Processing of the ubiquitin-Smac fusions is rapid and complete and generates mature Smac protein initiating correctly with the Ala-Val-Pro-Ile tetrapeptide sequence that is required for proper function. The biol. activity of this exogenous protein was demonstrated by its interaction with X-linked IAP, one of the most potent of the IAPs. The presence of mature Smac was not sufficient to trigger apoptosis of healthy cells. However, cells with excess Smac protein were greatly sensitized to apoptotic triggers such as etoposide exposure. Cancer cells typically display deregulated apoptotic pathways, including Bcl2 overexpression, thereby suppressing the release of cytochrome c and Smac. The ability to circumvent the requirement for mitochondrial processing and release is critical to developing Smac as a possible gene therapy payload in cancer chemosensitization.

RE.CNT 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:927451 CAPLUS  
DN 138:19527  
TI IAP binding peptides and assays for identifying compounds that bind IAP

IN McLendon, George; Kipp, Rachel A.; Case, Martin; Shi, Yigong  
 PA The Trustees of Princeton University, USA  
 SO PCT Int. Appl., 56 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002096930	A2	20021205	WO 2002-US17342	20020531
	WO 2002096930	A3	20040318		
				W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	
	EP 1421204	A2	20040526	EP 2002-729333	20020531
		R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR		
	JP 2004531731	T2	20041014	JP 2003-500109	20020531
PRAI	US 2001-294682P	P	20010531		
	US 2002-345630P	P	20020103		
	WO 2002-US17342	W	20020531		
OS	MARPAT 138:19527				
AB	Assays are disclosed for identifying peptides and peptidomimetics for promoting apoptosis in cells, through a pathway involving the Inhibitor of Apoptosis Proteins (IAPs), exemplified by XIAP, and the mitochondrial protein Smac/DIABLO (hereinafter Smac) and homologs thereof. The present invention features an assay for use in high throughput screening or rational drug design of agents that can, like the Smac tetrapeptide or its homologs in other species, bind to a BIR domain of an IAP, thereby relieving IAP-mediated suppression of apoptosis. The assay comprises the following basic steps: (a) providing a labeled mimetic of an IAP-binding tetrapeptide that binds to the appropriate BIR domain (preferably BIR3), wherein at least one measurable feature of the label changes as a function of the mimetic being bound to the IAP or free in solution; (b) contacting the BIR domain of an IAP with the labeled mimetic under conditions enabling binding of the mimetic to the BIR domain, thereby forming a BIR-labeled mimetic complex having the measurable feature; (c) contacting the BIR-labeled mimetic complex with the compound to be tested for BIR binding; and (d) measuring displacement of the labeled mimetic from the BIR-labeled mimetic complex, if any, by the test compound, by measuring the change in the measurable feature of the labeled mimetic, thereby determining if the test compound is capable of binding to the IAP. In a preferred embodiment, the labeled mimetic is AVPX, wherein X is directly or indirectly linked to a fluorogenic dye. Preferably, it is AVPC attached to a badan dye. The present invention also provides a library of peptides or peptidomimetics that have been demonstrated by the methods of the invention to bind to the BIR3 domain of XIAP.				
L3	ANSWER 10 OF 19 CAPLUS	COPYRIGHT 2004 ACS on STN			
AN	2002:293679	CAPLUS			
DN	136:305833				
TI	Peptides derived from smac (DIABLO) and methods of using them to screen for apoptosis modulating compounds				
IN	Fesik, Stephen W.; Meadows, Robert P.; Betz, Stephen P.; Liu, Zhihong; Olejniczak, Edward T.; Sun, Chaohong				
PA	Abbott Laboratories, USA				
SO	PCT Int. Appl., 26 pp.				
	CODEN: PIXXD2				

DT Patent  
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002030959	A2	20020418	WO 2001-US32121	20011012
	WO 2002030959	A3	20020926		

W: CA, JP, MX  
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
PT, SE, TR

PRAI US 2000-687549 A 20001013

AB The present invention relates to peptides derived from the wild-type human smac (DIABLO) protein which binds to a member of an IAP (inhibitor-of-apoptosis protein) family member, which regulate programmed cell death by inhibiting members of the caspase family of enzymes. The peptides of the present invention can be used in an assay to identify candidate substances which induce or promote apoptosis in cells. These IAP-binding peptides are derived from the 9-amino acid N-terminal smac (DIABLO) protein which have the amino acid sequence: Ala-Xaax-Xaay-Xaaz-(Xaa)<sub>n</sub>-B, wherein Xaax, Xaay, and Xaaz, each represent a hydrophobic amino acid independently selected from the group consisting of leucine, valine, isoleucine, phenylalanine, proline, tryptophan, tyrosine, and methionine, n independently has a value from 0 to 20, where at least one of the Xaan amino acids is the same or different from that of the wild-type human smac (DIABLO) protein, and B is absent or is a carboxy protecting group.

L3 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:256295 CAPLUS

DN 136:289086

TI Compositions and methods for regulating apoptosis

IN Shi, Yigong

PA Trustees of Princeton University, USA

SO PCT Int. Appl., 62 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002026775	A2	20020404	WO 2001-US30567	20010928
	WO 2002026775	A3	20030123		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,  
PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,  
US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2001093189 A5 20020408 AU 2001-93189 20010928

US 2002177557 A1 20021128 US 2001-965967 20010928

PRAI US 2000-236574P P 20000929

US 2000-256830P P 20001220

WO 2001-US30567 W 20010928

OS MARPAT 136:289086

AB Peptides and peptidomimetics capable of modulating apoptosis through their interaction with cellular IAPs (inhibitor of apoptosis proteins) are disclosed. The peptides and mimetics are based on the N-terminal tetrapeptide of IAP-binding proteins, such as Smac/DIABLO, Hid, Grim and Reaper, which interact with a sp. surface groove of IAP. Also disclosed are methods of using these peptides and peptidomimetics for therapeutic purposes and for rational drug design.

L3 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:157823 CAPLUS  
DN 136:212574  
TI Protein Smac and its functional variants, their function in promoting apoptosis and uses in identifying modulators of apoptosis  
IN Alnemri, Emad S.  
PA Thomas Jefferson University, USA  
SO PCT Int. Appl., 78 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002016418	A2	20020228	WO 2001-US26492	20010824
	WO 2002016418	A3	20030206		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2001086730	A5	20020304	AU 2001-86730	20010824
	EP 1315811	A2	20030604	EP 2001-966195	20010824
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRAI US	2000-227735P	P	20000824		
	WO 2001-US26492	W	20010824		

AB The present invention discloses that sequences of isolated DNA mols. encoding cytosolic isoform of Smac and its function variants, in particular, the N-terminus of the protein, which are capable of specifically binding to at least a portion of an inhibitor of apoptosis protein (IAP) protein and promoting apoptosis. In particular, the invention discloses that protein Smac has at least two contiguous amino acid residues derived from at least residues 56-139 of SEQ ID NO: 1 and of which up to 184 contiguous amino acid residues can be derived from residues 56-239 of SEQ ID NO: 1, a functional variant of each or a functional equivalent of each, each of which is capable of specifically binding to an IAP. The invention also relates to expression vectors that contains the DNA mols. of the present invention, host cells transformed with the expression vectors, antibodies to this protein as well as methods for inducing apoptosis in cells. The invention further discloses that this protein can be used in a method to modulate apoptosis or to identify modulators of apoptosis as well as in therapeutic uses.

L3 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:157809 CAPLUS  
DN 136:210550  
TI Apoptotic peptide compounds interacting with inhibitor of apoptosis protein for pathogenic cell apoptosis  
IN Wang, Xiaodong; Du, Chunying  
PA Board of Regents, the University of Texas System, USA  
SO PCT Int. Appl., 40 pp.  
CODEN: PIXXD2

DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002016402	A2	20020228	WO 2001-US41869	20010823
	WO 2002016402	A3	20020613		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,  
 PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,  
 UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 US 6608026 B1 20030819 US 2000-645075 20000823  
 AU 2001091270 A5 20020304 AU 2001-91270 20010823  
 US 2004077542 A1 20040422 US 2003-641539 20030815  
 PRAI US 2000-645075 A 20000823  
 WO 2001-US41869 W 20010823

OS MARPAT 136:210550

AB The invention provides methods and compns. for apoptosis of pathogenic cells. The general method comprises contacting the cells with an effective amount of an AV peptoid, wherein the AV peptoid is a peptide comprising AX1, wherein X1 is V, I or L, or a peptide mimetic thereof, which interacts with an Inhibitor of Apoptosis protein (IAP) as measured by IAP binding, procaspase-3 activation or promotion of apoptosis, wherein apoptosis of the pathogenic cells is enhanced. The subject compns. encompass pharmaceutical compns. comprising a therapeutically effective amount of a subject AV peptoid in dosage form and a pharmaceutically acceptable carrier, wherein the AV peptoid is a peptide comprising AX1, wherein X1 is V, I or L, or a peptide mimetic thereof, which inhibits the activity of an Inhibitor of Apoptosis protein (IAP) as measured by IAP binding, procaspase-3 activation or promotion of apoptosis. The invention also provides assays for identifying agents which modulates the interaction of an AV peptoid with an IAP, active compds. identified in such screens and their use in the foregoing compns. and therapeutic methods. Both peptoid and chemotherapies demonstrated inhibition of human lung large cell carcinomas in mice; combination therapies provided enhanced inhibition over either therapy alone.

L3 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:833504 CAPLUS

DN 137:358061

TI Conserved sequence of XIAP-binding motif in human caspase-9 and Smac/DIABLO and therapeutic uses for screening modulators of apoptosis

IN Alnemri, Emad S.

PA Thomas Jefferson University, USA

SO U.S. Pat. Appl. Publ., 52 pp., Cont.-in-part of U.S. Ser. No. 939,293.  
 CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002160975	A1	20021031	US 2002-68569	20020206
	US 2002132786	A1	20020919	US 2001-939293	20010824
	WO 2003010184	A2	20030206	WO 2002-US3553	20020206
	WO 2003010184	A3	20030814		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
 UA, UG, US, UZ, VN, YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,  
 GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,  
 GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2001-267966P P 20010208

US 2001-939293 A2 20010824  
US 2000-227735P P 20000824

AB The invention provides conserved sequence of XIAP-binding motif in human caspase-9 and Smac/DIABLO. The invention also provides caspase-9-related peptides and polypeptides capable of binding to an Inhibitor of Apoptosis Protein (IAP), as well as caspase-9 mutant that fail to undergo normal processing and fail to bind to an IAP. Nucleic acid mols., including expression vectors, encoding such peptides and polypeptides are also provided. Such peptides and polypeptides, are useful for inducing apoptosis and identifying inhibitors and enhancer of apoptosis.

L3 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:363320 CAPLUS  
DN 137:105391  
TI Molecular Targeting of Inhibitor of Apoptosis Proteins Based on Small Molecule Mimics of Natural Binding Partners  
AU Kipp, Rachael A.; Case, Martin A.; Wist, Aislyn D.; Cresson, Catherine M.; Carrell, Maria; Griner, Erin; Wiita, Arun; Albiniak, Philip A.; Chai, Jijie; Shi, Yigong; Semmelhack, Martin F.; McLendon, George L.  
CS Department of Chemistry, Frick Laboratory and Department of Molecular Biology, Lewis Thomas Laboratory, Princeton University, Princeton, NJ, 08544, USA  
SO Biochemistry (2002), 41(23), 7344-7349  
CODEN: BICHAW; ISSN: 0006-2960  
PB American Chemical Society  
DT Journal  
LA English  
AB An assay based on a solvent-sensitive fluorogenic dye mol., badan, is used to test the binding affinity of a library of tetrapeptide mols. for the BIR3 (baculovirus IAP repeat) domain of XIAP (X-linked inhibitor of apoptosis protein). The fluorophore is attached to a tetrapeptide, Ala-Val-Pro-Cys-NH<sub>2</sub>, through a thiol linkage and, upon binding to XIAP, undergoes a solvatochromic shift in fluorescence emission. When a mol. (e.g., a natural protein known to bind to XIAP or a tetrapeptide mimic) displaces the dye, the emission shifts back to the spectrum observed in water. As emission intensity is related to the binding of the tetrapeptide, the intensity can be used to determine the equilibrium constant, K, for the displacement of the dye by the tetrapeptide. The results permit residue-specific anal. of the interaction. Furthermore, we show that hydrophobic effects in the fourth position are general and can effectively increase overall affinity.  
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1  
AN 1991:409096 CAPLUS  
DN 115:9096  
TI Cyclopeptide alkaloids: further studies on mauritine-C and sativanine-C  
AU Shah, A. H.; Al-Yahya, M. A.; El-Sayed, A. M.; Tariq, M.; Ageel, A. M.  
CS Coll. Pharm., King Saud Univ., Riyadh, 11451, Saudi Arabia  
SO Pakistan Journal of Pharmaceutical Sciences (1989), 2(2), 81-9  
CODEN: PJPSN; ISSN: 1011-601X  
DT Journal  
LA English  
AB The 14-membered cyclopeptide alkaloid mauritine-C (I) and the 13-membered cyclopeptide alkaloid sativanine-C were isolated from *Zizyphus spina-christi* and *Zizyphus sativa* commonly used in the Saudi Folklor medicine. The N-formyl derivs. of these compds. were prepared and their corresponding spectral data was analyzed. Fundamental differences were observed in the mass spectrometric fragmentation of the newly formed derivs. as compared to the parent compds. High resolution mass spectrometry was found a useful tool to substantiate the fragmentation pattern proposed for these potential natural products.

L3 ANSWER 17 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 1987:153052 CAPLUS  
DN 106:153052  
TI The alkaloids of Zizyphus sativa  
AU Shah, A. H.; Miana, G. A.; Tschesche, R.  
CS Dep. Chem., Gomal Univ., D. I. Khan, Pak.  
SO Nat. Prod. Chem., Proc. Int. Symp. Pak.-U.S. Binatl. Workshop, 1st (1986),  
Meeting Date 1984, 404-29. Editor(s): Rahman, Atta Ur. Publisher:  
Springer, Berlin, Fed. Rep. Ger.

CODEN: 55JSAT

DT Conference

LA English

AB Chromatog. of the bark of Z. sativa yielded the alkaloids frangufoline,  
nummularine B, mucronine D, and the sativanines A-G. Identification of  
the compds. was made from mass spectral data.

L3 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 1986:65887 CAPLUS

DN 104:65887

TI The alkaloids of Rhamnaceae. Part 39. An N-formyl cyclopeptide alkaloid  
from the bark of Zizyphus sativa

AU Shah, A. H.; Pandey, V. B.; Eckhardt, G.; Tschesche, R.

CS Dep. Chem., Gomal Univ., Dera Ismail Khan, Pak.

SO Phytochemistry (Elsevier) (1985), 24(11), 2768-70

CODEN: PYTCAS; ISSN: 0031-9422

DT Journal

LA English

AB From the bark of Z. sativa, a previously undescribed cyclopeptide  
alkaloid, sativanine F (I) was isolated. The structure was deduced by  
spectroscopic methods and chemical degradation It is a 13-membered  
cyclopeptide  
alkaloid and provides the first example of such a naturally occurring  
N-formyl cyclopeptide alkaloid.

L3 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2  
AN 1984:587941 CAPLUS

DN 101:187941

TI The alkaloids of Rhamnaceae. Part 34. Sativanine C: a cyclopeptide  
alkaloid from the bark of Zizyphus sativa

AU Shah, A. H.; Pandey, V. B.; Eckhardt, G.; Tschesche, R.

CS Dep. Chem., Gomal Univ., D. I. Khan, Pak.

SO Phytochemistry (Elsevier) (1984), 23(4), 931-3

CODEN: PYTCAS; ISSN: 0031-9422

DT Journal

LA English

AB Sativanine-C (I) was isolated from Z. sativa and its structure was determined  
by standard chemical and spectral methods.